



Jerry E. Abramson  
Mayor

26 Member  
Metro Council

The Office of Internal  
Audit provides independent,  
objective assurance and  
consulting services  
that adds value to and  
improves Louisville  
Metro Government.

# Office of Internal Audit

Louisville Metro  
Government

Utility Expenditures



# **Audit Report**

**Office of Internal Audit**

## **Louisville Metro Government**

### **Utility Expenditures**

**July 2005**



**Louisville Metro  
Government**

**Utility Expenditures**

## Table of Contents

<b>Transmittal Letter .....</b>	<b>2</b>
Introduction.....	2
Scope.....	3
Opinion .....	3
Corrective Action Plan .....	4
Internal Control Rating .....	5
Background.....	6
Summary of Audit Results.....	6
 <b>Observations and Recommendations.....</b>	 <b>8</b>
#1 - Utility Administration .....	9
#2 - Potential Duplicate Payments.....	14
#3 - Utility Service Locations .....	15
Metro General Services Administration Response .....	16
 <b>Appendix .....</b>	 <b>17</b>
Table 1 - Utility Expenditures .....	17
Table 2 - Number of Utility Service Locations .....	17
Table 3 - Utility Service Accounts Payable Activity (Major Suppliers) .....	18

## **Transmittal Letter**

July 20, 2005

The Honorable Jerry E. Abramson  
Mayor of Louisville Metro  
Louisville Metro Hall  
Louisville, KY 40202

### **Re: Review of Louisville Metro Utility Expenditures**

#### **Introduction**

We have examined the operating records and procedures associated with administration of Louisville Metro utility expenditures. The primary focus of the audit was the operational and fiscal administration of the activity. This included how Louisville Metro departments process, record, and monitor the activity. Louisville Metro Government expends approximately \$11 million annually for utilities. The details of this amount are included in the report appendix.

Our examination was conducted in accordance with Government Auditing Standards issued by the Comptroller General of the United States and with the Standards for the Professional Practice of Internal Auditing issued by the Institute of Internal Auditors.

As a part of the review, the internal control structure was evaluated. The objective of internal control is to provide reasonable, but not absolute, assurance regarding the achievement of objectives in the following categories:

- Achievement of business objectives and goals
- Effectiveness and efficiency of operations
- Reliability of financial reporting
- Compliance with applicable laws and regulations
- Safeguarding of assets

There are inherent limitations in any system of internal control. Errors may result from misunderstanding of instructions, mistakes of judgment, carelessness, or other personnel

factors. Some controls may be circumvented by collusion. Similarly, management may circumvent control procedures by administrative oversight.

### **Scope**

The Louisville Metro's utility expenditure management was reviewed, including processing procedures administered by the Louisville Metro Finance department and the General Services Administration. Interviews of key personnel were conducted. The focus of the review was the management of utility expenditure activity. The following types of utility activities were reviewed.

- Utility administration
- Potential duplicate payments
- Utility service locations

The population of transactions charged to utility accounts on the Louisville Metro financial system was reviewed. A sample of activity was examined including utility bills, payment processing, and monitoring of these expenditures.

The review included assessing whether transactions were processed in an efficient and effective manner to allow for proper oversight of the activity. The procedures for monitoring the payments were also reviewed. The details of the scope and methodology of the review will be addressed in the Observations and Recommendations section of this report. Our examination would not reveal all non-compliance issues because it was based on selective review of data.

### **Opinion**

It is our opinion that the operating procedures associated with the processing and monitoring of utility payments can be improved. The internal control rating is on page 5 of this report. This rating quantifies our opinion regarding the internal controls, and identifies areas requiring corrective action.

Opportunities to strengthen the operating procedures and the monitoring of utility administration were noted in several areas. Examples of these include the following.

- **Utility Administration Plan.** There is not a documented plan that defines how utility service location responsibilities are assigned to Metro departments. Also, there are not adequate listings of locations for which Metro is responsible for providing utility services.
- **Monitoring.** Monitoring of utility billings is not sufficient. Some billing documentation does not contain ample detail to adequately monitor charges.
- **Electronic Payments.** Electronic utility payment processing procedures do not promote adequate internal controls or cash management practices.
- **Efficiency and Effectiveness.** The lack of a coordinated system likely hinders the efficiency and effectiveness of utility administration and payment processing.

For one month, utility payments included two hundred and nineteen invoices processed through the Metro accounts payable system resulting in fifty-five checks for the two major utility providers. Assuming a conservative estimate of

\$10 overhead associated with an invoice, this activity level would result in approximately \$15,500 annually of processing costs. This estimate does not consider the cost of processing the utility bills paid using the electronic bank transfer procedures.

- **Duplicate Payments.** The lack of an effective processing and monitoring system for utility activity increases the risk that duplicate payments may occur.

Louisville Metro management recognizes the significance of utility administration and the associated costs. Approximately \$11 million was expended for utility services for fiscal year 2004 associated with approximately 1,900 service accounts. The details of this activity are included in the report appendix. The implementation of the recommendations in this report will help improve the internal controls and compliance with utility expenditure activity.

### **Corrective Action Plan**

Representatives from both Metro Finance and the General Services Administration (GSA) have reviewed the results and are committed to addressing the issues noted. Both departments agree that GSA should be responsible for the overall administration of utility activity. Metro Finance has verbally committed to provide assistance during the implementation of a utility management plan. The corrective action plan is included in this report as responses in the Observations and Recommendations section. We will continue to work with management to ensure the actions taken are effective to address the issues noted.

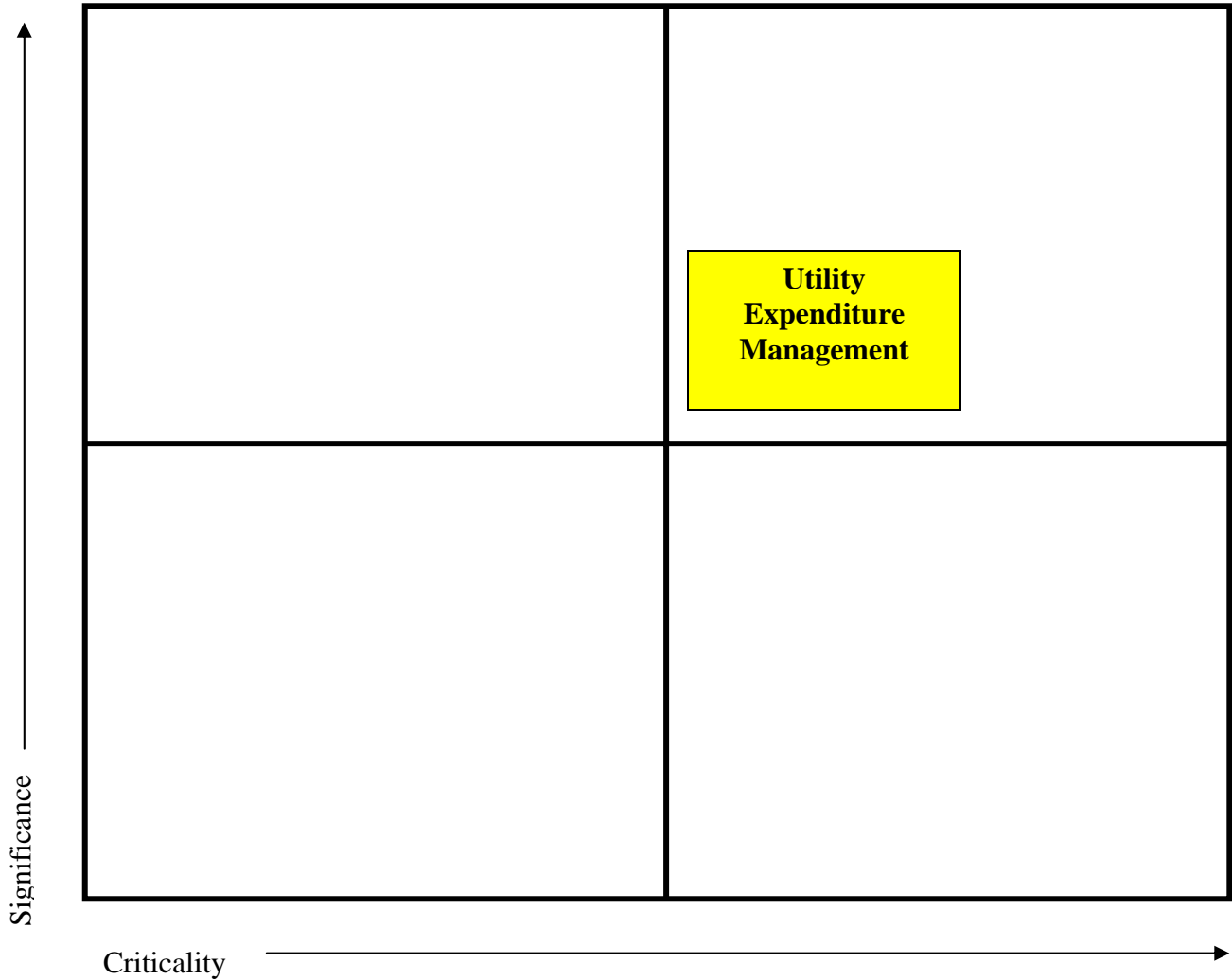
Sincerely,



Michael S. Norman, CIA  
Chief Audit Executive

cc: Louisville Metro Council Audit Committee  
Louisville Metro Council Members  
Deputy Mayors  
Secretary of the Cabinet for Finance and Administration  
Chief Financial Officer  
Director of General Services Administration  
Director of GSA Procurement and Business Affairs

**Internal Control Rating**



<u>Legend</u>			
<u>Criteria</u>	<u>Satisfactory</u>	<u>Weak</u>	<u>Inadequate</u>
<i>Issues</i>	Not likely to impact operations.	Impact on operations likely contained.	Impact on operations likely widespread or compounding.
<i>Controls</i>	Effective.	Opportunity exists to improve effectiveness.	Do not exist or are not reliable.
<i>Policy Compliance</i>	Non-compliance issues are minor.	Non-compliance issues may be systemic.	Non-compliance issues are pervasive, significant, or have severe consequences.
<i>Image</i>	No, or low, level of risk.	Potential for damage.	Severe risk of damage.
<i>Corrective Action</i>	May be necessary.	Prompt.	Immediate.

## **Background**

Louisville Metro Government manages facilities that require standard utility services (gas, electric, water, sewer). Depending on the type and location of service, various departments process payments for utilities. A couple of methods (electronic bank transfer, accounts payable supplier check) may be used to process routine payments to service providers.

Louisville Metro Government expends approximately \$11 million annually for utilities. The details of this amount are included in the report appendix.

This was a scheduled audit.

## **Summary of Audit Results**

### **I. Current Audit Results**

See Observations and Recommendations section of this report.

### **II. Prior Audit Issues**

The Office of Internal Audit has not performed any previous reviews of the administration of Metro utility expenditure activity.

### **III. Statement of Auditing Standards**

Our audit was performed in accordance with Government Auditing Standards issued by the Comptroller General of the United States and with the Standards for the Professional Practice of Internal Auditing issued by the Institute of Internal Auditors.

### **IV. Statement of Internal Control**

We conducted a formal study of the internal control structure in order to obtain a sufficient understanding to support our final opinion.

### **V. Statement of Irregularities, Illegal Acts, and Other Noncompliance**

Our examination did not disclose any instances of irregularities, any indications of illegal acts, and nothing came to our attention during the examination that would indicate evidence of such. Any significant instances of noncompliance with laws and regulations are reported in the Observations and Recommendations section of this report.

### **VI. Views of Responsible Officials / Action Plan**

An exit conference was held on July 8, 2005. Attending were Jane Driskell and Sara Parks representing the Louisville Metro Department of Finance; Susan Neumayer and Craig Bowen representing the General Services Administration (GSA); Mike Norman and Mark Doran representing the Office of Internal Audit.



Representatives from the departments agree that the GSA should be responsible for the overall administration of utility activity. Metro Finance has verbally committed to provide assistance during the implementation of a utility management plan. The views of Metro GSA officials are included as responses in the Observations and Recommendations section of the report. Finance and GSA officials are committed to addressing the issues noted.

## Observations and Recommendations

### **Scope**

The Louisville Metro Government procedures for managing utility expenditures (electric, gas, water and sewer) were reviewed. This included the procedures used to administer routine utility expenditures, ensure integrity of costs and monitor the various services. Applicable Louisville Metro personnel were interviewed in order to gain a thorough understanding of the various processes.

A limited review of the population of utility expenditures recorded on the Louisville Metro financial system effective during June 2004 was performed. The purpose of this review was to ensure that procedures are in place regarding the operational and fiscal administration of utility expenditures and related activity. This included the processing, recording, and monitoring of expenditures associated with utility services. In addition, a sample of activity was examined to identify potential duplicate payments and assess the appropriateness of utility service locations. The results are as follows.

### **Observations**

There were some problems noted with the procedures for the administration of utilities for the Louisville Metro Government. As a result, the internal control structure is weakened and its effectiveness impaired. The problems are as follows:

- #1 - Utility Administration
- #2 - Potential Duplicate Payments
- #3 - Utility Service Locations

Details of these begin on the following page.

## **#1 - Utility Administration**

There were some weaknesses identified that hinder the effective and efficient administration of utility activity.

- There is not adequate monitoring of utility payment activity. Depending on the type of service and location, various departments process payments for utility services. There is no documented plan that defines how utility service location responsibilities are assigned to Metro departments. There are not adequate listings of locations for which Metro is responsible for providing utility services. Some departments process billings submitted without sufficient verification as to the appropriateness of individual service being charged (e.g., ensure service is for a Metro location/purpose).
- Monitoring appears to be inadequate for the electronic utility payment process administered by the Metro Finance Department. Currently, a service provider is authorized to independently initiate fund transfers from a Louisville Metro bank account for payment of some billings. This process does not require prior authorization of responsible Louisville Metro staff in order to review the transactions for appropriateness prior to the transfer. This process does not promote adequate internal controls or cash management practices.

Primarily, Metro Finance staff ensures that bank transfers agree with the billing records after the transaction has been processed. The computer templates used to process payments contain descriptive information that is not familiar to Finance staff responsible for administering the activity. While this information does not affect the amounts actually charged or recorded on the Metro financial system, it displays a lack of understanding and review of the information processed by Metro Finance staff.

- Several weaknesses were noted during the review of utility payment documentation.
  - The supplier invoices do not always provide sufficient information in order to determine the appropriateness of the payment. Some invoices noted “various locations” instead of specific service sites, while others did not provide the type of service being provided (e.g. electric, gas or sewer, water). This lack of information impairs the ability to monitor the appropriateness of service locations and the type of utility use charged.
  - One payment was supported by a utility bill for another entity’s account (City of Shively City Hall). A portion of the charge was allocated and billed to Louisville Metro (Louisville Free Public Library-Newman Branch). Based on the documentation available, the amount charged Louisville Metro could not be verified.
  - Utility charges may be allocated to multiple accounts on the Louisville Metro financial system. While the total payment amounts appeared to be accurate, the methodology for some utility expenditure allocations was not clear. In some cases, only a billing summary is provided. This lack of information makes it impossible to determine whether charges represent actual use at specific locations.
  - Some invoices included taxes and fees (e.g., electric sales tax of 6%) in addition to charges for utility services. It was not clear whether these charges should have been paid.
  - Metro Finance could not provide payment documentation for twenty-nine utility expenditure transactions. This missing documentation hinders the ability to assess the accuracy and appropriateness of the payments.

- Metro staff representing several departments have discussed utility payment responsibilities and consulted with supplier representatives, along with the Energy Use Partnership (EUP) utility conservation group. Currently, there is not a coordinated approach to utility management. Efforts have been progressing to improve utility management. The following are some issues that have been considered.

- Louisville Metro would like to implement a utility management system that would allow resources to focus on effective monitoring, not detailed processing. This might be accomplished by using computer file information from service providers to process payments and provide activity reports. Ultimately, this would require less Louisville Metro resources (e.g., staff time, supplies) and allow for a reallocation of efforts to reconcile and monitor transactions.

A more effective approach to utility management would likely improve efficiency regarding payments. In addition to electronic fund transfers, June 2004 utility payments included two hundred and nineteen invoices processed through the Metro accounts payable system resulting in fifty-five checks for the two major utility providers. The details are included in the appendix of this report. This involved utility charges for twenty-seven departments that were processed by staff from thirteen different departments. This does not consider the accounts processed using the electronic bank transfer procedures for utility services.

- Another goal of a computerized payment system would be to limit the number of bank transfers and checks processed for a single supplier. In addition to requiring less administrative overhead, this would promote improved cash management practices for Louisville Metro. Payments should require that Metro Finance receive notification and authorize transfers to suppliers. Currently, service providers have the ability to transfer funds from a Louisville Metro bank account for utility payments due. The inability to accurately anticipate these fund transfers likely hinders the ability to manage investment activity in an effective manner.
- Louisville Metro Finance department and General Services Administration management are considering the designation of a single, responsible contact department for utility administration. This plan involves coordinated management of utilities with defined policies and procedures to improve the tracking of utility activity, as well as, ensuring account changes (establishment of a new account or disconnection of accounts) are properly recorded. Additionally, improved management of utility accounts would provide better information for budgeting purposes and conservation efforts.

### **Recommendations**

Appropriate personnel should take corrective action to address the concerns noted. Specific recommendations include the following.

### **Policies and Procedures**

- ✓ Metro Finance department and General Services Administration management should continue to invest the proper resources in order to address the issues noted in this report. Considering the amount of annual utility expenditures and the level of

activity, effective and efficient utility administration should be a priority of Metro government.

- ✓ Metro Finance department and General Services Administration management should develop a utility management process with specific roles and responsibilities. Monitoring responsibilities should be assigned in order to ensure service locations and payments are appropriate for Metro activity. While the process may include multiple departments to monitor utility activity, a single department should administer the system.
- ✓ All utility transactions (e.g., establishment of new accounts, disconnection of accounts) should be administered through a single Metro department. There should be a documented method that is followed for these actions and a list of all authorized locations and service types should be maintained. This listing should be provided to applicable personnel who process the utility payments in order to verify billing accuracy and reasonableness. The implementation of standardized utility procedures would help ensure all Metro departments are consistent in the management and monitoring of these services.
- ✓ As utility administration changes are implemented, assessments should be made of procedures and reports to determine if the anticipated improvements are achieved in an effective manner. This should consider the efficiency of processing, as well as, the accuracy and completeness of records.

#### Payments

- ✓ Louisville Metro should continue investigating the possibility of expanded electronic processing of utility payments. Utility provider billing information should be submitted in an electronic format that could be interfaced/uploaded to the Louisville Metro financial system. Enhanced automated processing would improve efficiency and allow for resources to more appropriately be dedicated to monitoring. Louisville Metro management should coordinate departmental efforts in conjunction with utility provider representatives to determine the most efficient and effective manner to administer utility activity.
- ✓ Efforts should be made to reduce the total number of payments to a single supplier. Reduced costs and processing efficiencies should be realized with fewer checks/electronic payments processed.
- ✓ Utility payments should be properly authorized in advance. Electronic payments should not be processed without review and approval of responsible Metro staff. This helps ensure the appropriateness of the payment, along with allowing for proper cash management. In cases where supplier invoices are paid through the Metro accounts payable system, documentation should be reviewed and approved by a responsible individual. This includes ensuring the services were actually received. Additionally, the transaction should be reviewed to verify that the same payment is not being processed in another manner (e.g., electronic payment process vs. accounts payable transaction).
- ✓ Louisville Metro should determine the appropriateness of all charges billed. This includes taxes and fees. Additionally, Metro should investigate whether there are opportunities to establish all services as municipal government accounts that might be exempt from certain types of charges such as sales tax, late fees and penalties. This is

especially important since Louisville Metro Government is exempt from Kentucky State Sales Tax.

- ✓ All payments should be processed in a timely manner. State Law requires that payment be made within 30 days of receipt of invoice. Documentation should be retained to document the receipt of the billing invoice from the supplier (e.g., date of electronic billing information received, date/time stamping of invoices). This will help to document compliance with the law.

#### Invoices/Documentation

- ✓ The amounts charged and the allocation of charges should be clearly documented. This helps to ensure the accuracy and appropriateness of the payment. In addition, it helps to determine which Metro department/division is accountable for the activity. Ultimately, this helps match actual activity to the budget/anticipated use for a physical location.
- ✓ Louisville Metro should continue efforts with service suppliers to organize account billings/invoices. It would help increase the economy and efficiency of processing if all accounts were included in coordinated summary billings (e.g., segregated for responsible departments). The detail billings included on summary statements should be noted as “paid” to avoid multiple payments for a single account.
- ✓ Regardless of the format of utility billings, sufficient detail (e.g., location, service type, usage, rates) should be provided to adequately monitor activity. This includes supporting documentation to verify the appropriateness of services and amounts paid (e.g., individual billings compiled on summary and electronic billings). A sampling of these should routinely be reviewed for appropriateness to ensure that no taxes, late fees, past due balances, unauthorized services, etc. are included.

#### Monitoring and Reconciliation

- ✓ A formal, documented reconciliation process should be implemented. The detailed monthly financial reports should be compared to some type of source documentation (e.g., payment document/invoice, electronic payment register). This helps ensure the transactions were processed as intended and posted to the proper financial accounts. This also helps strengthen the reliability of the financial statements.
- ✓ All incorrect billings and the associated changes should be documented and the utility supplier contacted so that adjustments are properly reflected on future billings. Care should be taken in order to ensure payments are prepared properly and accurately (e.g., financial coding, purchase order number reference) and in accordance with Metro policies and procedures.
- ✓ Louisville Metro management should develop a utility payment system with documented monitoring responsibilities assigned to ensure expenditures are made for appropriate Metro purposes.
- ✓ The Metro department responsible for the overall administration of utilities should coordinate oversight of the utility expenditures with the specific departments charged. This would require that sufficient documentation (e.g., billing detail) be provided and that some sort of reconciliation verification be centrally retained. This practice would

place the actual verification of appropriateness on the department most familiar with the charges. It's not expected that a single department could effectively perform all utility monitoring duties. Therefore, a coordinated approach would allow for a more expedited, detailed review.

- ✓ In addition to the accuracy and appropriateness of periodic utility bills, Louisville Metro should implement formal procedures to analyze utility costs. Financial statement monitoring should factor in operational changes (e.g., increase/decrease of operating hours, changes in facilities/buildings). Trend analysis based on historical usage should be utilized to monitor accounts and project future use as needed. Some utility providers provide historical information that could be used to help identify potential problems and to monitor trends in usage for specific accounts.
- ✓ To the extent possible, utility payment and monitoring efforts should be coordinated with the information system being considered by the EUP energy conservation group. Additional savings may be realized through a single system that promotes energy conservation, as well as, processing efficiency and reduced overhead. A single system may compliment the goals of both processing and conservation improvements. Even if a single system is not used, the possibility of an electronic file format from utility providers that would accommodate both systems should be considered.

## **#2 - Potential Duplicate Payments**

A sample of forty utility payments, representing eighteen address/site locations, was reviewed to identify potential duplicate payments. This was accomplished by identifying multiple payments recorded for locations and referencing the supporting documentation to determine the specific service account, location and period.

A duplicate payment appears to have been made for one of the locations reviewed. One payment was made through the electronic process administered by Metro Finance, with the other payment being paid based on the invoice processed by the user department (Louisville Metro Police). This type of problem exhibits weaknesses in the current utility payment procedures that could result in duplicate payments for single accounts.

## **Recommendations**

Appropriate personnel should take corrective action to address the concerns noted. Specific recommendations include the following.

- ✓ The system used to administer utilities should be designed with internal controls to help avoid duplicate payments. As previously noted, this could be achieved through improved billing records, payment processing, routine monitoring and coordinated management of activity.
- ✓ In cases where potential duplicate payments are detected, follow-up review of records should be performed to determine the payment appropriateness. The service provider should be contacted as necessary to ensure any corrections are made.



### **#3 - Utility Service Locations**

A sample of utility payments for thirty locations was reviewed to determine whether the location was a Louisville Metro facility. This was accomplished by referencing information provided by key Louisville Metro staff and by ownership information recorded on the Metro Information Development and Asset System (MIDAS).

Metro staff could not conclusively identify two of the locations examined. While it cannot be determined with certainty, these are likely Louisville Metro facilities based on the description/location address. The inability to definitively identify locations for which utility services are provided exhibits inadequate oversight and could result in expenditures for inappropriate activity (e.g., non-Metro facilities).

### **Recommendations**

Appropriate personnel should take corrective action to address the concerns noted. Specific recommendations include the following.

- ✓ As previously noted, a single Metro department should administer utility activity. Documented monitoring responsibilities should be assigned and include the verification of utility charges with authorized service locations. One way to accomplish this would be to compare utility provider billing invoices to an internal listing of authorized service locations.
- ✓ The Metro department responsible for the overall administration of utilities could coordinate oversight of the appropriateness of utility service sites with the specific departments charged/accountable for the location. This would place the actual verification of appropriateness on the department most familiar with the utilities, while allowing for a unified system to manage the activity.

### **Metro General Services Administration Response**

The General Services Administration (GSA) is working with the Finance Department to resolve the issues with Metro's utility payments and billings. Our first order of business is to hire staff that will take the lead on resolving the issues. We are close to hiring the personnel that is needed. This person's first project will be the utility issues. We feel that this project has several issues associated with it. These include:

- Processing charges in a more efficient manner, such as grouping locations under summary bills.
- Monitoring to ensure Metro is charged properly for usage. This involves verifying that the rates are appropriate and reviewing activity to detect potential billing errors.
- Documenting the location of the meters/service locations.

When the new person is on board, the issues will be defined and a plan of action laid out. We recognize that this is very important to Metro and it is a high priority with GSA.

While both departments agree that GSA should be responsible for the overall administration of utility activity, Metro Finance has verbally committed to provide assistance during the implementation of a utility management plan. Finance and GSA officials are committed to addressing the issues noted.

## Appendix

**Table 1 - Utility Expenditures**

Louisville Metro Government paid approximately \$11 million in utility expenses during fiscal year 2004. The fiscal year 2005 budget amount for utilities is approximately \$11 million. The activity is recorded in the following three accounts on the Louisville Metro financial system.

<b>Description (Account)</b>	<b>Fiscal Year 2004 Actual</b>	<b>Fiscal Year 2005 Budget</b>
Gas and Electric (522401)	\$5,146,030	\$5,152,136
Water (522402)	\$1,115,583	\$1,391,900
Electric (522440)	\$4,722,319	\$4,481,000
<b>Total</b>	<b>\$10,983,933</b>	<b>\$11,025,036</b>

**Table 2 - Number of Utility Service Locations**

Louisville Metro Government paid for services at approximately 1,900 service connections/accounts during June 2004. The utility sites/connections were recorded in the following three accounts on the Louisville Metro financial system.

<b>Description (Account)</b>	<b>Number of Service Locations</b>
Gas and Electric (522401)	504
Water (522402)	287
Electric (522440)	1,137
<b>Total</b>	<b>1,928</b>

*Service locations are based on identifiable utility provider account numbers, the majority of which are associated with two suppliers (Louisville Gas and Electric, Louisville Water Company).*

**Table 3 - Utility Service Accounts Payable Activity (Major Suppliers)**

Two suppliers provide the majority of utility services. The following accounts payable activity was processed during fiscal year 2004 for these major suppliers.

**Sample period examined**

<b>Utility Provider</b>	<b>Number of Invoices</b>	<b>Number of Checks</b>
Louisville Gas and Electric	193	42
Louisville Water Co.	26	13
<b>Total</b>	<b>219</b>	<b>55</b>

**Fiscal Year 2004 (July 2003 through June 2004)**

<b>Utility Provider</b>	<b>Number of Invoices</b>	<b>Number of Checks</b>
Louisville Gas and Electric	1,357	201
Louisville Water Co.	198	113
<b>Total</b>	<b>1,555</b>	<b>314</b>

*The number of invoices and checks are based on the accounts payable transactions recorded on the Louisville Metro financial system for the major utility suppliers (Louisville Gas and Electric, Louisville Water Company).*